

## ABSTRACT

A illumination system according to the present invention is a illumination system 100 comprising: a first reflecting mirror 20a arranged on the rear side of a light-emitting portion 11 of the illumination system 100 including an arc tube 10; and a second reflecting mirror 30a arranged on the front side of the light-emitting portion 11 of an optical system. The system is arranged so that the diameter D1 on a reflecting surface 50 of the first reflecting mirror 20a corresponding to the available marginal light emitted from the light-emitting portion 11 to the rear side of the illumination system is larger than the diameter d1 of the outer surface of the second reflecting mirror 30a and the diameter d1 of the outer surface of the second reflecting mirror 30a is set to a size within the light L1 and L2 as the available marginal light reflected by the first reflecting mirror 20a, a reflecting surface 60 of the second reflecting mirror 30a surrounds about half of the front side of the light-emitting portion 11, and the light emitted from the center of the light-emitting portion 11 and incident on the second reflecting mirror 30a agrees with the normal of the second reflecting mirror 30a.